

Brittain, J.

U.S. Serial No. 09/682,699

REMARKS

Claims 1-12 and 16-20 are pending in the present application. Claims 1-12 and 16-21 are allowed. The Examiner rejected claims 22-30 under 35 U.S.C. §103(a) as being unpatentable over Hajnal (USP 6,385,478). Claim 30 also stands rejected under 35 U.S.C. §112, second paragraph.

TELEPHONE INTERVIEW SUMMARY

Before responding substantively to the Examiner's rejections, Applicant will briefly clarify the subject matter of the telephone interview held with the Examiner on March 5, 2004. Specifically, the Examiner contacted the undersigned whereupon the Examiner requested and suggested that Applicant amend claim 22 to incorporate the subject matter of claim 23. The Examiner proposed the amendment to place the application in condition for allowance based on the Examiner's conclusion that which is called for in claim 22 is neither distinguishable nor patentable over that taught and/or suggested by the Hajnal reference. Responsive thereto, the undersigned thanked the Examiner for the opportunity to amend the application at that time, but, given that the Examiner had applied a new reference, Applicant declined to make the proposed amendment and requested an opportunity to review the Hajnal reference in response to a written Office Action from the Examiner. While the Examiner seemed bothered by Applicant's request, the Examiner did agree, nevertheless, to prepare an Office Action setting forth with particularity the rejection of the non-allowed claims based on Hajnal.

PREMATURE FINALITY

Additionally, Applicant believes the finality of the Office Action mailed March 19, 2004 is premature. The Examiner in the Continuation Sheet accompanying the Interview Summary indicated that the action was made final because the amendment made to claim 22 necessitated the new grounds of rejection. However, as set forth in the Amendment mailed December 15, 2003, the amendment to claim 22 was made at the request of the Examiner to clarify certain elements of the claim that the Examiner believed unclear. The amendment was not made to define the invention over the art of record. Accordingly, Applicant is unclear how the amendment to claim 22 warranted finality. As set forth in the December 15, 2003 Amendment, Applicant believes the amendment to claim 22 was not made to define over the art of record as it was believed that which was called for in claim 22 to be patentably distinct from

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the art of record. Accordingly, withdrawal of the finality of the March 19, 2004 Office Action is deemed appropriate and requested.

ALLOWED CLAIMS

Claims 1-12 and 16-21 have been allowed. While claim 16 has been allowed, Applicant has amended the claim to correct an antecedent basis issue. It is believed that the amendments to claim 16 do not affect its allowability.

REJECTED CLAIMS

The Examiner rejected claim 30 under 35 U.S.C. §112, second paragraph, for recitation of the limitation: "selecting a larger slab thickness than that used for imaging". Applicant has amended claim 30 to clarify that which is being claimed. By this amendment, Applicant believes that claim 30 satisfies the statutory provision of Title 35 of the U.S. Code.

The Examiner next rejected claims 22-30 under 35 U.S.C. §103(a) as being unpatentable over Hajnal. Hajnal teaches an MR imaging apparatus whereby a patient couch is continuously moved through a "region of good field" such that "data samples collected are corrected to compensate for the motion so that a volumetric image is formed of a greater length than that of the restricted region". See Abstract. In contrast to that which is claimed, however, Hajnal fails to teach or suggest data acquisition during the continuous movement of a predefined optimal imaging area with respect to an imaging object in a first or readout direction until complete image data is acquired across an entire FOV to construct an image of the FOV. In fact, Hajnal teaches away from such an imaging protocol as is particularly shown in Figs. 5a-5d thereof.

As shown in Figs. 5a-5d, Hajnal teaches application of a frequency encode or readout gradient along the y-direction. The slice select and secondary phase encode direction is identified as the z-direction whereas the primary phase encode direction is identified as the x-direction. Hajnal identifies that the secondary phase encoding direction is the direction of motion of the patient support. Specifically, Hajnal states that "volumetric data samples are encoded with secondary phase encoding in the direction of motion of the patient support and with primary phase encoding...in a transverse direction." Col. 2, Ins. 33-35. As such, it is clear that Hajnal identifies the direction of movement as the slice select and secondary phase encode directions or z-direction – which is not the y or frequency encoding direction. One skill d in the

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art of MR imaging will readily appreciate that the z-direction is transverse or orthogonal to the y-direction.

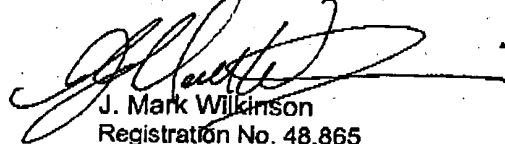
Claim 22, on the other hand, clearly sets forth that the computer has instructions to control a computer to define readout in a first direction and repeat image data acquisition during continuous movement of the predefined optimal imaging area with respect to an imaging object in the first direction until complete image data is acquired across the entire FOV to reconstruct an image of the FOV. Accordingly, it is clear that the present invention, as defined by claim 22, identifies the direction of movement as being the direction of readout. As set forth above, Hajnal teaches readout in a direction orthogonal to the direction of patient or subject movement. Therefore, that which is called for in claim 22, as well as claims 23-30 depending therefrom, is patentably distinct from that taught and/or suggested by Hajnal.

It is noted that Applicant has amended claim 22 to correct an antecedent basis issue and has not been amended to define over the art of record.

Therefore, in light of the foregoing, Applicant respectfully believes that the present application is in condition for allowance. Accordingly, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-12 and 16-30.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks, and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



J. Mark Wilkinson
Registration No. 48,865
Direct Dial 262-376-5016
jmw@zpspatents.com

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P.O. ADDRESS:
Ziolkowski Patent Solutions Group, LLC
14135 North Cedarburg Road
Mequon, WI 53097-1416
262-376-5170